# U.S. House of Representatives
## Committee on Natural Resources
## Washington, DC 20515



March 28, 2011

Mr. Michael Bromwich
Director
Bureau of Ocean Energy Management, Regulation and Enforcement
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240

Dear Director Bromwich:

I write to request your views regarding whether blowout preventers (BOPs) can continue to be described or relied upon as a fail-safe means to prevent blowouts in light of the recent report[1] by your contractor, Det Norske Veritas, which concluded that these devices apparently cannot be counted on to stop blowouts once they have already started. I also request that you provide me with information regarding the new deepwater drilling permits recently issued by the Department in light of this highly disturbing information.

As you know, a blowout preventer's intended function can be described as being similar to a car's airbag; it can't prevent the car accident from occurring, but it is supposed to deploy and prevent fatalities if one does occur. At a June 17, 2010 hearing of the House Oversight and Investigations Subcommittee,[2] then-BP CEO Tony Hayward indicated, in response to questions about the BOP used for the Macondo well, that this was industry's view of what the BOP was intended to be as well:

> "We believed that the blowout preventer was the ultimate fail-safe mechanism. That clearly was not the case in this instance."
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> "I believe the most important one is to take the failsafe mechanism called the blowout preventer and design is such that it is genuinely failsafe. The reality in all industrial accidents is that there are always a combination of equipment failure and human judgment. And the most important thing is to have in place a system that is genuinely failsafe. And it is clear, based on our experience of this accident, that the current design

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1 http://www.deepwaterinvestigation.com/external/content/document/3043/1047291/1/DNV%20Report%20EP030842%20for%20BOEMRE%20Volume%20I.pdf

2 http://democrats.energycommerce.house.gov/documents/20100617/transcript.06.17.2010.oi.pdf

basis of the blowout preventer being used in the deep water, not just in this case, but across the world, is not as failsafe as we believed it to be. And I believe that is a very important lesson that the industry needs to grasp, along with the relevant regulatory agencies."

Last week, the DNV report entitled "Forensic Examination of Deepwater Horizon Blowout Preventer" was issued to the Department. Rather than conclude that the BOP had failed to operate due to human or mechanical error, the report concluded that the shear rams did in fact close on the drill pipe. However, before this occurred, the report concluded that the force of the fluids rushing out of the blown out well caused the drill pipe to buckle and move off center in the well-bore, thereby preventing the rams from cutting the pipe and preventing the rubber gaskets from sealing off the flow of oil. According to the report, "The drill pipe most likely deflected to the side of the well from the moment the well began flowing. Trapping of the drill pipe between the ram faces would have taken place regardless of which means initiated BSR [blind shear ram] closure (AMF/Deadman or Autoshear)." The report goes on to recommend that an examination of the ability of BOPs to function as intended under blowout conditions be performed, and that their designs be appropriately modified.

The results of this study appear to indicate that rather than being a "fail-safe" device, blowout preventers may instead be "sure to fail" during actual blowouts. This is a highly disturbing conclusion, particularly in light of the Department's recent approval of six deepwater drilling permits[3]. Consequently, I ask for your prompt responses to the following questions and requests for information.

1) Does the Department concur with DNV's conclusion that the primary cause for the failure of the BOP in the Deepwater Horizon blowout was the buckling of the drill pipe due to the pressures and volumes of well fluids, which led to the inability of the BOP shear rams to seal or cut the drill pipe? If not, please fully describe why not.

2) If the DNV conclusion is accurate, does the Department believe that there is any commercially available or commercially utilized well design practice or technology that could prevent the sort of drill pipe buckling effect if a blowout of a reservoir with similar characteristics to the Macondo well were to occur in the future? If so, please fully describe all such practices or technologies, including a description of how the practice or technology would prevent such a buckling effect on the drill pipe.

3) If the DNV conclusion is accurate, does the Department believe that there is any commercially available or commercially utilized BOP design or technology that could successfully shear and seal drill pipe that had buckled and shifted off-center due to forces it experienced as a result of a blowout? If so, please fully describe all such designs or technologies, including a description of how the design or technology would succeed in doing what the BOP used for the Macondo well could not.

4) The DNV report recommended that an examination of the ability of BOPs to function as intended under blowout conditions be performed, and that BOP designs be appropriately

[3] See for example http://www.boemre.gov/ooc/press/2011/press0324.htm

modified. Will the Department require such an examination of all of the BOPs deployed on the Outer Continental Shelf and require modification of their designs to ensure that they will actually function as intended? If not, why not? If so, please set forth the schedule for such examination and modification. Will the Department also halt all permitting activities until such examination and modification activities are complete? Why or why not?

5) Does the Department believe that BOPs can be characterized as "fail-safe" in light of the DNV report's conclusions? Why or why not?

6) The Department recently issued a new Drilling Safety Rule[4] that included a number of measures intended to improve the performance of BOPs. Can any of these measures guarantee that shear rams will be able to seal and/or cut drill pipe that has buckled and shifted off-center due to the forces associated with an actual blowout? If so, please fully describe all such measures, including a description of how exactly the measure would have, had it been implemented, prevented the apparent failure of the "fail-safe" BOP used for the Macondo well.

7) Since BOPs can no longer apparently be considered to be effective at stopping a blowout from turning into a catastrophic oil spill, I am concerned that the Department will have to rely on the ability of a well operator to contain and respond to such a spill if it intends to continue to allow oil and gas exploration activities to proceed in the Gulf of Mexico. Such a reliance has also been cited by you[5] in your announced deepwater permits. However, a recent media report[6] indicated that the oil spill response plan provided for in the Noble Energy-BP permit issued by the Department on February 28[7] was prepared in 2009, before the Deepwater Horizon accident occurred and thus without the incorporation of its lessons. Approving this permit, especially with an outdated spill response plan, would seem in hindsight to be especially unwise given the DNV conclusion that blowout preventers cannot prevent actual blowouts. Please therefore provide me with copies of all documents (including reports, emails, correspondence, memos, phone or meeting minutes or other materials) related to the Department's approval of all deepwater drilling permits or exploratory plans issued in 2011, including:

    a. A copy of the spill response plan associated with each drilling permit or exploratory plan.
    b. Any materials used to justify the ability of the well operator to meet and satisfy the Department's post-Deepwater Horizon enhanced safety requirements associated with deepwater drilling, including the capability to contain a deepwater loss of well control and blowout.

Thank you for your attention to this important matter. I request that you provide your response to question 5 prior to March 30, 2011, and that the rest of your response be

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[4] http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&PageID=45792
[5] http://www.boemre.gov/ooc/press/2011/press0324.htm
[6] http://www.msnbc.msn.com/id/26315908/ns/msnbc_tv-rachel_maddow_show/#42260648
[7] http://www.boemre.gov/ooc/press/2011/press0228.htm

provided no later than close of business Monday April 25, 2011. If you have any questions or concerns, please have your staff contact Dr. Michal Freedhoff of the House Natural Resources Committee Democratic staff at 202-225-2836.

Sincerely,

Edward J. Markey

Edward J. Markey
Ranking Member
House Natural Resources Committee

cc: The Honorable Doc Hastings
Chairman
House Natural Resources Committee